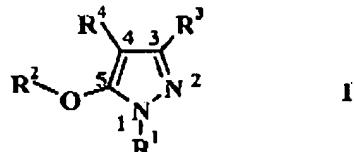


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CURRENT LISTING OF CLAIMS

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1. (original) A compound according to formula I

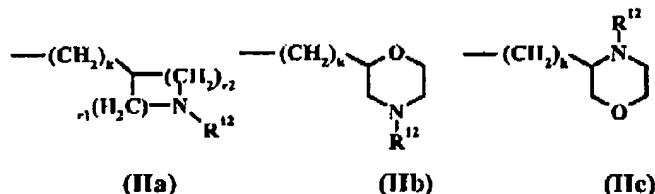


wherein

R^1 is selected from the group consisting of C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-6} alkenyl, C_{3-6} alkynyl, C_{3-7} cycloalkyl, C_{1-3} alkoxy- C_{1-3} alkyl, phenyl and benzyl, wherein, said phenyl and said benzyl optionally substituted with one to three substituents independently selected from the group consisting of C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{1-6} alkylthio, nitro, halogen and cyano;

R^2 is phenyl or pyridyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkoxycarbonyl, and $CONR^6R^7$;

R^3 is substituted C_{1-6} alkyl, substituted C_{1-3} alkoxy- C_{1-3} alkyl, substituted C_{3-7} alkenyl, C_{3-7} cycloalkyl, optionally substituted C_{1-3} alkoxy, $(CH_2)_nR^5$, $ClI(OH)R^5$, $-(CH_2)_n-O-(CH_2)_nR^5$, NR^6R^7 , $C(=Y)Z$, $-X(C=Y)Z$ or **IIa-c**;



wherein,

said alkyl, said C_{1.1} alkoxy-C_{1.3} alkyl and said alkenyl are substituted by -OII.

-NR⁶R⁷, -C(=Y)Z, -X(C=Y)Z, CN, -S(O)_n-C₁₋₆alkyl; -SO₂NR⁶R⁷, -

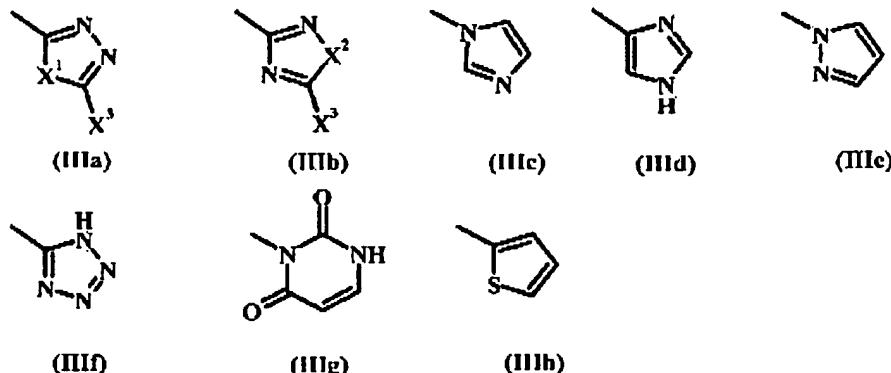
$\text{SO}_2\text{NHNNH}_2$ or

-NR⁶SO₂-C₁₋₄ alkyl-

said alkoxy is optionally substituted by $-\text{OH}$, $-\text{NR}^6\text{R}^7$, $-\text{C}(\text{=Y})\text{Z}$, $-\text{X}(\text{C}=\text{Y})\text{Z}$, $-\text{S}(\text{O})_4-\text{C}_{1-6}$ alkyl, $-\text{SO}_2\text{NR}^6\text{R}^7$ or $-\text{SO}_2\text{NHNH}_2$;

R^{12} is hydrogen, C_{1-6} alkyl or $-C(=Y)Z$;

R^3 is a phenyl or a heteroaryl ring according to formula IIIa-IIIh;



wherein

X^1 is selected from the group consisting of $-R^{10}C=CR^{10a}$, $-O^-$, $-S^-$, $-NR^6$ and $-CHR^6$;

X^2 is selected from the group consisting of $-R^{10}C=CR^{10a}$, $-O^-$, $-S^-$, and $-CHR^6$;

X^3 is selected from the group consisting of hydrogen, hydroxyl and thiol;

R^{10} and R^{10a} are independently selected from the group consisting of hydrogen or C_{1-6} alkyl optionally substituted with one or two substituents independently selected from the group consisting of hydroxy, C_{1-6} alkoxy, thiol, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, halogen, amino, C_{1-6} alkylamino, C_{1-3} dialkylamino, amino- C_{1-3} alkyl, C_{1-3} alkylamino- C_{1-3} alkyl, and C_{1-3} dialkylamino- C_{1-3} alkyl;

said phenyl and said heteroaryl ring optionally substituted with halo, $-OR^6$, $-NR^6R^7$,

$-C(=O)Z$, $-X(C=O)Z$

R^4 is C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-7} cycloalkyl, C_{1-3} alkoxy- C_{1-3} alkyl, $-(CH_2)_nR^{11}$ or $-(CH_2)_n-O-(CH_2)_nR^{11}$;

wherein,

said alkyl, said alkenyl, said alkynyl and said cycloalkyl are optionally substituted by

$-OH$,

$-OR^6$, $-NR^6R^9$, $-C(=Y)Z$, $-X(C=Y)Z$, $-S(O)_q-C_{1-6}$ alkyl, $-SO_2NR^6R^7$ or $-SO_2NHNIH_2$;

R^{11} is a phenyl or a heteroaryl ring selected from the group consisting of pyridinyl, pyrimidinyl pyrazinyl, pyrrole, imidazole, pyrazole and thiophene, said heteroaryl ring and said phenyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C_{1-3} alkyl, C_{1-3} haloalkyl and C_{1-3} alkoxy; or R^{11} is $N[(CH_2)_2]_2W$ wherein W is selected from the group consisting of NR^6 , $(CH_2)_n$, $N(C=O)Z$, $CHOR^6$, CHR^6 , $CHNIIC(=O)Z$ and $CHNR^6R^7$;

n , o , p and q are as defined below and s is 0 or 1;

R^6 , R^7 , R^8 and R^9 (i) taken independently are selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} hydroxyalkyl, C_{1-3} alkoxy- C_{1-3} alkyl C_{1-3} alkylamino- C_{1-3} alkyl and C_{1-3} dialkylamino- C_{1-3} alkyl or (ii) when both R^6 and R^7 are attached to the same nitrogen atom they may be taken together, along with the nitrogen, to form a pyrrolidine, piperidine, piperazine or morpholine;

X , and Y are independently O or NR^6 ;

Z is hydrogen, hydroxyl, C_{1-6} alkoxy, NR^6R^{13} , C_{1-6} alkyl, C_{1-3} alkoxy- C_{1-3} alkyl wherein R^{13} is R^7 or phenyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C_{1-3} alkyl, C_{1-3} haloalkyl and C_{1-3} alkoxy;

n is 0 to 3;

o and p are independently 0 to 4 and $o + p \leq 5$;

q is 0 to 2;

k , $r1$ and $r2$ are independently 0 to 4, and $5 \geq (r1 + r2) \geq 2$; and,

acid addition salts, hydrates and solvates thereto; with the proviso that when R^4 is $-(CH_2)_nR^{11}$, n is 1 and R^{11} is substituted phenyl, R^2 is other than unsubstituted phenyl.

2. (original) A compound according to claim 1 wherein:

R^1 is selected from the group consisting of C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-7} cycloalkyl, C_{1-3} alkoxy- C_{1-3} alkyl and optionally-substituted phenyl;

R^2 is optionally substituted phenyl; and,

R^4 is C_{1-6} alkyl, C_{3-7} cycloalkyl, $(CH_2)_nR^{11}$ or $-(CH_2)_o-O-(CH_2)_pR^{11}$; wherein, said alkyl and said cycloalkyl are optionally substituted by -OH, -OR⁶, -NR⁸R⁹, -C(=Y)Z, or -X(C=Y)Z;

R^{11} is a phenyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C_{1-3} alkyl, C_{1-3} haloalkyl and C_{1-3} alkoxy.

3. (original) A compound according to claim 2 wherein R³ is substituted C₁₋₆ alkyl, IIa-c or -(CH₂)_nR⁵ wherein R⁵ is IIIa-IIIb.

4. (original) A compound according to claim 2 wherein R³ is -(CH₂)_nNR⁶R⁷, -(CH₂)_nC(=O)Z or -(CH₂)_nXC(=O)Z.

5. (original) A compound according to claim 1 wherein:

R¹ is selected from the group consisting of C₁₋₆alkyl, C₁₋₆haloalkyl, C₃₋₇cycloalkyl, C₁₋₃alkoxy-C₁₋₃alkyl and optionally substituted phenyl;

R² is optionally substituted phenyl; and,

R⁴ is C₁₋₆alkyl, C₃₋₇cycloalkyl, -(CH₂)_nR¹¹ or -(CH₂)_n-O-(CH₂)_pR¹¹; wherein, said alkyl and said cycloalkyl are optionally substituted by -OH, -OR⁶, -NR⁸R⁹, -C(=Y)Z, -X(C=Y)Z;

R¹¹ is a heteroaryl ring selected from the group consisting of pyridinyl, pyrimidinyl pyrazinyl, pyrrole, imidazole, pyrazole and thiophene, said heteroaryl ring optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C₁₋₃alkyl, C₁₋₃haloalkyl and C₁₋₃alkoxy.

6. (original) A compound according to claim 5 wherein R³ is substituted C₁₋₆ alkyl, IIa-c or -(CH₂)_nR⁵ wherein R⁵ is IIIa-IIIb.

7. (original) A compound according to claim 5 wherein R³ is (CH₂)_nNR⁶R⁷, (CH₂)_nC(=O)Z, or -(CH₂)_nXC(=O)Z.

8. (original) A compound according to claim 1 wherein:

R¹ is selected from the group consisting of C₁₋₆alkyl, C₁₋₆haloalkyl, C₃₋₇cycloalkyl, C₁₋₃alkoxy-C₁₋₃alkyl and optionally substituted phenyl;

R² is optionally substituted phenyl; and,

R⁴ is C₁₋₆alkyl, C₃₋₇cycloalkyl, -(CH₂)_nR¹¹ or -(CH₂)_n-O-(CH₂)_pR¹¹; wherein,

said alkyl and said cycloalkyl are optionally substituted by -OH, -OR⁶, -NR⁸R⁹, -C(=Y)Z, -X(C=Y)Z;

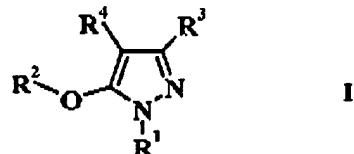
R¹¹ is N[(CH₂)₂]₂W wherein W is selected from the group consisting of NR⁶, (CH₂)_n and N(C=O)Z, CHOR⁶, CHR⁶CHNHC(=O)Z and CHNR⁶R⁷.

9. (original) A compound according to claim 8 wherein R³ is substituted C₁₋₆ alkyl, IIa-c or (CH₂)_nR⁵ wherein R⁵ is IIIa-IIIb.

10. (original) A compound according to claim 8 wherein R³ is -(CH₂)_nNR⁶R⁷, -(CH₂)_nC(=O)Z or -(CH₂)_nXC(=O)Z.

11 - 16 (cancelled).

17. (original) A pharmaceutical composition comprising a therapeutically effective quantity of a compound of formula I



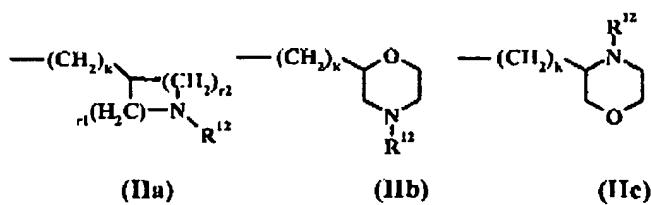
wherein

R¹ is selected from the group consisting of C₁₋₆ alkyl, C₁₋₆haloalkyl, C₃₋₆alkenyl, C₃₋₆alkynyl,

C₃₋₇cycloalkyl, C₁₋₃alkoxy-C₁₋₃alkyl, phenyl and benzyl, wherein, said phenyl and said benzyl optionally substituted with one to three substituents independently selected from the group consisting of C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxy, C₁₋₆haloalkoxy, C₁₋₆alkylthio, nitro, halogen and cyano;

R² is phenyl or pyridyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆alkoxycarbonyl, and CONR⁶R⁷;

R³ is substituted C₁₋₆ alkyl, substituted C₁₋₃alkoxy-C₁₋₃ alkyl, substituted C₃₋₆alkenyl, C₃₋₇cycloalkyl, optionally substituted C₁₋₆alkoxy, -(CH₂)_nR⁵, -CH(OH)R⁵, -(CH₂)_nO-(CH₂)_nR⁵, -NR⁶R⁷, -C(=Y)Z, -X(C=Y)Z or IIa-c;



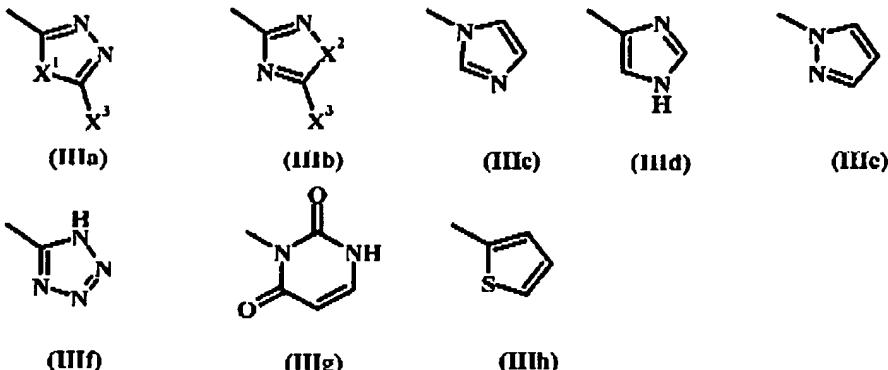
wherein,

said alkyl, said C_{1-3} alkoxy- C_{1-3} alkyl and said alkenyl are substituted by -OH, $-\text{NR}^6\text{R}^7$, $-\text{C}(\text{=Y})\text{Z}$, $-\text{X}(\text{C}=\text{Y})\text{Z}$, CN, $-\text{S}(\text{O})_q\text{C}_{1-6}$ alkyl, $-\text{SO}_2\text{NR}^6\text{R}^7$, $-\text{SO}_2\text{NHNNH}_2$, or $-\text{NR}^6\text{SO}_2\text{C}_{1-6}$ alkyl;

said alkoxy is optionally substituted by -OH, $-\text{NR}^6\text{R}^7$, $-\text{C}(\text{=Y})\text{Z}$, $-\text{X}(\text{C}=\text{Y})\text{Z}$, $-\text{S}(\text{O})_q\text{C}_{1-6}$ alkyl; $-\text{SO}_2\text{NR}^6\text{R}^7$ or $-\text{SO}_2\text{NHNNH}_2$;

R^{12} is hydrogen, C_{1-4} alkyl or $-\text{C}(\text{=Y})\text{Z}$;

R^3 is a phenyl or a heteroaryl ring according to formula IIIa-IIIh;



wherein

X^1 is selected from the group consisting of $\text{R}^{10}\text{C}=\text{CR}^{10a}$, -O-, -S-, -NR⁶- and -CHR⁶;

X^2 is selected from the group consisting of $\text{R}^{10}\text{C}=\text{CR}^{10a}$, -O-, -S-, and -CHR⁶;

X^3 is selected from the group consisting of hydrogen, hydroxyl and thiol;

R^{10} and R^{10a} are independently selected from the group consisting of hydrogen or C_{1-6} alkyl optionally substituted with one or two substituents independently selected from the group consisting of hydroxy, C_{1-6} alkoxy, thiol, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, halogen, amino, C_{1-6} alkylamino, C_{1-3} dialkylamino, amino- C_{1-3} alkyl, C_{1-3} alkylamino- C_{1-3} alkyl, and C_{1-3} dialkylamino- C_{1-3} alkyl;

said phényl and said heteroaryl ring optionally substituted with halo, -OR⁶, -NR⁶R⁷, -C(=O)Z, -X(C=O)Z

R⁴ is C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₃₋₇cycloalkyl, C₁₋₃alkoxy-C₁₋₃alkyl, -(CH₂)_nR¹¹

or

-(CH₂)_o-O-(CH₂)_pR¹¹; wherein,

said alkyl, said alkenyl, said alkynyl and said cycloalkyl are optionally substituted by -OH, -OR⁶, -NR⁶R⁹, -C(=Y)Z, -X(C=Y)Z, -S(O)_q-C₁₋₆alkyl, -SO₂NR⁶R⁷ or -SO₂NH₂;

R¹¹ is a phenyl or a heteroaryl ring selected from the group consisting of pyridinyl, pyrimidinyl pyrazinyl, pyrrole, imidazole, pyrazole and thiophene, said heteroaryl ring and said phenyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C₁₋₃ alkyl, C₁₋₃ haloalkyl and C₁₋₃ alkoxy; or R¹¹ is N[(CH₂)₂]₂W wherein W is selected from the group consisting of NR⁶, (CH₂)_s, -N(C=O)Z, CHOR⁶, CHR⁶CHNHC(=O)Z and CHNR⁶R⁷;

n, o, p and q are as defined below and s is 0 or 1;

R⁶, R⁷, R⁸ and R⁹ (i) taken independently are hydrogen, C₁₋₆alkyl, C₁₋₆hydroxyalkyl, C₁₋₃alkoxy-C₁₋₃alkyl C₁₋₃alkylamino-C₁₋₃alkyl or C₁₋₃dialkylamino-C₁₋₃alkyl or (ii) when both R⁶ and R⁷ are attached to the same nitrogen atom they may be taken together, along with the nitrogen, to form a pyrrolidine, piperidine, piperazine or morpholine;

X, and Y are independently O or NR⁶;

Z is hydrogen, hydroxyl, C₁₋₆alkoxy, NR⁶R¹³, C₁₋₆alkyl, C₁₋₃alkoxy-C₁₋₃alkyl wherein R¹³ is R⁷ or phenyl optionally substituted with one to three groups independently selected from the group consisting of halogen, cyano, C₁₋₃alkyl, C₁₋₃haloalkyl and C₁₋₃alkoxy; n is 0 to 3;

o and p are independently 0 to 4 and o + p ≤ 5;

q is 0 to 2;

k, r1 and r2 are independently 0 to 4, and 5 ≥ (r1 + r2) ≥ 2; and, acid addition salts, hydrates and acid addition salts, hydrates and solvates thereof, with the proviso that when R⁴ is (CH₂)_nR¹¹, n is 1 and R¹¹ is substituted phenyl, R² is other than unsubstituted phenyl, in admixture with at least one pharmaceutically acceptable carrier or diluent sufficient upon administration in a single or multiple dose regimen for treating diseases mediated by human immunodeficiency virus or for inhibiting HIV.

* * * * *